

REMARKS/ARGUMENTS

Reconsideration of this application is respectfully requested. The following remarks are responsive to the Office Action mailed November 19, 2003.

Claims 14, 26, and 37 have been objected to by the Examiner, but allowable if rewritten to include all the limitations of the base claims.

Claim 14 has been objected to. Appropriate correction has been made.

Claims 5, 6, 11, 16-17, 19-21, 23, 28-32, 34, and 39-40 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,345,461 of Barton, et al. (hereafter "Barton").

Claims 1-4, 10, 12, 18, 24, and 35 are rejected under 35 U.S.C. §103(a) as being unpatentable over Barton, in view of US. Patent No. 5,887,032 of Cioffi (hereafter "Cioffi").

Claims 7-9, 13, 15, 22, 25, 27, 33, 36, and 38 are rejected under 35 U.S.C. §103(a) as being unpatentable over Barton, in view of U.S. Patent No. 3,814,868 of Bradley (hereafter "Bradley").

Claims 1- 4 have been cancelled without traverse.

Claim 5, 19, 20, 30, 31, and 36 have been amended. It is respectfully submitted that no new matter has been added.

CLAIM REJECTIONS

Rejections under 35 USC §102

The Examiner rejected claims 5, 6, 11, 16-17, 19-21, 23, 28-32, 34, and 39-40 under 35 U.S.C. §102(b) as being unpatentable over Barton. Applicants submit that claims 5, 6, 11, 16-17, 19-21, 23, 28-32, 34, and 39-40 are not anticipated by Barton. In regard to the rejection of claim 5, the Examiner has stated in part that:

Barton teaches... accumulating statistical information about the impairments, (col.1, line 60-col.2, line 7); (historical data and detected characteristics are received and models are derived for the data for preventive maintenance); and updating the a priori statistical models...
(11/19/03, Office Action, p. 2)

Applicants respectfully disagree. Barton does not state anywhere in his patent that models are derived from the data, whether for preventive maintenance or for any other reason. The center of Barton's diagnostics is his diagnostics interface 200. Barton collects performance data via diagnostics interface 200, such as bi-polar violations, cyclical redundancy checks, line unavailable seconds, hourly and daily counts for both communication directions and similar performance data. (Barton col. 25, ll. 3-26) Barton simply collects data. In fact, Barton explains, that this performance data is stored and eventually downloaded to a central office (Barton col. 22, ll. 35-40) so that a technician can eventually diagnose and remedy problems. (Barton, col. 21, ll. 1-3). From this analysis, it follows that Barton does not describe "creating a priori statistical models," or "updating the a prior statistical models using a posterior statistical models," as claimed by applicants.

Applicants' nevertheless, respectfully submit that claims 5-18 are not anticipated by Barton. Claim 5 recites the feature of "collecting a plurality of probability density functions..." (Emphasis added) This feature is not disclosed by Barton. In fact, the Examiner stated that claim 14 which also recites this feature would be allowable. (11/19/03, Office Action, p.7) Because, Barton does not disclose this feature taught by applicants' claim 5, applicants respectfully submit that claim 5 and claims 6-18 which depend from claim 1 are not anticipated under 35 U.S.C. §102(b) by Barton.

The Examiner also rejected claim 19 under 35 U.S.C. §102(b) for the reasons set forth in the rejection of claim 5. Claim 19 discloses substantially similar features as claim 5, and recites "compiling statistical models" and "collecting a plurality of probability density functions..." (Emphasis added) Because, Barton does not disclose these features as taught by applicants for

the reasons discussed above with regard to claim 5, applicants respectfully submit that claim 19 is not anticipated under 35 U.S.C. §102(b) by Barton.

The Examiner also rejected claim 20 under 35 U.S.C. §102(b) for the reasons set forth in the rejection of claim 5. Claim 20 discloses substantially similar features as claim 5, and recites “collecting a plurality of probability density functions...” (Emphasis added) Because, Barton does not disclose this feature as taught by applicants for the reasons discussed above in regard to claim 5, applicants respectfully submit that claim 20, and claims 21-29 which depend from claim 20 are not anticipated under 35 U.S.C. §102(b) by Barton.

The Examiner also rejected claim 30 under 35 U.S.C. §102(b) for the reasons set forth in the rejection of claims 5. Claim 30 discloses substantially similar features as claim 1, and recites “collecting a plurality of probability density functions...” (Emphasis added) Because, Barton does not disclose this feature as taught by applicants for the reasons discussed above in regard to claim 5, applicants respectfully submit that claim 30 is, not anticipated under 35 U.S.C. §102(b) by Barton.

The Examiner also rejected claim 31 under 35 U.S.C. §102(b) for the reasons set forth in the rejection of claims 5. Claim 31 discloses substantially similar features as claim 5, and recites “collecting a plurality of probability density functions...” (Emphasis added) Because, Barton does not disclose this feature as taught by applicants for the reasons discussed above in regard to claim 5, applicants respectfully submit that claim 31, and claim 32-40 which depend from claim 31 are not anticipated under 35 U.S.C. §102(b) by Barton.

Rejections under 35 USC §103

The Examiner has rejected claims 1-4, 10, 12, 18, 24, and 35 under 35 U.S.C. §103(a) as being obvious over Barton, in view of Cioffi.

In regard to the rejection of claims 1- 4 under 35 U.S.C. §103(a), applicants have cancelled claims 1- 4 without traverse.

The Examiner also rejected claims 10, 12, and 18 under 35 U.S.C. §103(a). Claims 10, 12, and 18 directly or indirectly depend from claim 5. Claim 5 includes the feature of “collecting a plurality of probability density functions...” (emphasis added). Barton does not describe this feature for the reasons provided above with regard to the rejection of claim 5. Cioffi does not describe this feature, as well. Cioffi models cross-talk interference by estimating an interference coefficient W using the Least-Means-Square adaptive approach. (Cioffi, col. 11. 43-55, col. 12, 11. 41-45). Thus, Cioffi does not describe “collecting a plurality of probability density functions...” as well. Because, neither Barton nor Cioffi disclose this feature as taught by applicants, applicants respectfully submit that claim 5, and claims 6-18 which depend from claim 5 are not obvious under 35 U.S.C. §103(a) by Barton in view of Cioffi.

The Examiner also rejected claim 24 under 35 U.S.C. §103(a) for the reasons set forth in the rejection of claims 10, 12, and 18. Claim 24 depends from claim 20 which discloses substantially similar features as claim 5, and recites “collecting a plurality of probability density functions.” (Emphasis added) Because, neither Barton, nor Cioffi disclose this feature as taught by applicants for the reasons discussed above with regard to claims 10, 12, and 18, applicants respectfully submit that claim 20, and claims 21-29 which depend from claim 20 are not obvious under 35 U.S.C. §103(a) by Barton in view of Cioffi.

The Examiner also rejected claim 35 under 35 U.S.C. §103(a) for the reasons set forth in the rejection of claims 10, 12 and 18. Claim 35 depends from claim 31 which discloses substantially similar features as claim 5, and recites “collecting a plurality of probability density functions... (Emphasis added) Because, neither Barton nor Cioffi disclose this feature as taught by applicants for the reasons discussed above in regard to claims 10, 12, and 18, applicants respectfully submit that claim 31, and claims 32-40 which depend from claim 31 are not obvious under 35 U.S.C. §103(a) by Barton in view of Cioffi.

The Examiner has rejected claims 7-9, 13, 15, 22, 25, 27, 33, 36 and 38 under 35 U.S.C. §103(a) as being obvious over Barton, in view of Bradley.

In regard to the rejection of claims 7-8 under 35 U.S.C. §103(a), the Examiner has stated in part that:

Barton does not teach of the external impairments being AM interferences or thermal impairments. Bradley teaches that it is well known in the art to consider external impairments....
(11/19/03 Office Action, p. 6).

Applicants submit that claims 7-8 are not obvious in view of Barton and Bradley. It is respectfully submitted that it would be impermissible hindsight, based on applicant's own disclosure, to combine Barton and Bradley. In regard to the rejection of claims 7-8, even if Barton and Bradley were combined, such a combination would lack one or more features of claim 5 from which claims 7-8 depend. Amended claim 5 recites the feature of "collecting a plurality of probability density functions..." (emphasis added)

Barton does not disclose this feature as disclosed in applicants' claim 5 for the reasons discussed above in regard to the rejection of claim 5. Nor does Bradley disclose "collecting a plurality of probability density functions..." as claimed by applicants. Bradley describes a telephone line characteristic measurement instrument. (Bradley, title) More specifically, Bradley describes an automatic gain control circuit that isolates disturbances. (Bradley, col. 3, ll. 45-50) Bradley does not describe the use of probability density functions, anywhere in his patent let alone "collecting a plurality of probability density functions..." Thus, because neither, Barton nor Bradley disclose applicant's claim 5, applicants respectfully submit that claim 5 and dependent claims 6-18 are not obvious under 35 U.S.C. §103(a) by Barton in view of Bradley.

The Examiner also rejected claims 22, 25, and 27 under 35 U.S.C. §103(a) for the reasons set forth in the rejection of claims 7-9. Claims 22-27, depend from claim 20 that discloses substantially similar features as claim 5, and recites "collecting a plurality of probability density functions..." (Emphasis added) Because, neither Barton nor Bradley disclose this feature as

taught by applicants for the reasons discussed above with regard to the rejection of claim 5, applicants respectfully submit that claim 20, and claims 21-29 which depend from claim 20 are not obvious under 35 U.S.C. §103(a) by Barton in view of Bradley.


The Examiner also rejected claims 33, 36, and 38 under 35 U.S.C. §103(a) for the reasons set forth in the rejection of claims 7-9. Claims 32-40 depends from claim 31 which discloses substantially similar features as claim 5, and recites "collecting a plurality of probability density functions." (Emphasis added) Because, neither Barton nor Bradley disclose this feature as taught by applicants for the reasons discussed above with regard to claim 5, applicants respectfully submit that claim 31, and claims 32-40 which depend from claim 31 are not obvious under 35 U.S.C. §103(a) by Barton in view of Bradley.

For the foregoing reasons, applicant respectfully submits that the applicable objections and rejections have been overcome and that the claims are in condition for allowance. If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: February 19th, 2004


Sanjeet K. Dutta
Reg. No. 46,145

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, CA 90025-1026
(408) 947-8200